1887MNRAS..47..431T

Observations of Saturn and δ Geminorum, Jan.–Feb., 1887. By John Tebbutt.

The accompanying positions of *Saturn* have been deduced from comparisons of the planet with the clock star δ *Geminorum* about the time of their conjunction. The measures were made with an excellent position filar micrometer on the Grubb 8-inch equatorial refractor, transits of the planet's western limb and the star being observed by means of a half-second chronometer across the single position thread in the meridian, and differences of Declination obtained between the star and the planet's south limb. The micrometer screws have been well tested, one revolution of the screw employed being 17″·869. The differential Right Ascension and Declination have been corrected for refraction. Corrections due to the planet's semi-diameter (see *Nautical Almanac*, page 282) have been applied to these coordinates and to the times of transit of the limb. The apparent place of the star has been adopted from the *Nautical Almanac*, and the places of the planet have been finally corrected for parallax. As the definition and steadiness of the images were all that could be desired, I have no doubt that the concluded positions will bear favourable comparison with those derived from meridian observations. The last two columns of the table subjoined exhibit a comparison of the results with the places interpolated from the ephemeris on page 258 of the *Nautical Almanac*.

	Windsor Mean Time.	Planet's Centre—Star		Comp.	Planet's Geocentric Apparent		Obs.—N.A.	
		Δα	Δδ		α	δ	α	δ
1887. d	h m s	m s	′ ″		h m s	° ′ ″	s	″
Jan. 30	10 35 10	+1 58·32	−0 19·4	9	7 15 21·79	+22 10 52·1	−0·10	−1·9
Feb. 1	10 3 46	+1 22·15	+1 0·3	20	7 14 45·61	+22 12 11·8	−0·11	−0·7
,, 8	9 37 38	−0 36·77	+5 18·3	14	7 12 46·66	+22 16 30·0	−0·19	−0·5
,, 9	10 9 37	−0 52·91	+5 53·3	17	7 12 30·53	+22 17 5·1	−0·18	−0·5
,, 14	10 28 54	−2 6·86	+8 34·9	12	7 11 16·56	+22 19 46·9	−0·19	−0·5

Windsor, N.S. Wales: 1887, *March* 12.

Downloaded from http://mnras.oxfordjournals.org/ at Uniwersytet Warszawski Biblioteka Uniwersytecka on March 26, 2015

© Royal Astronomical Society • Provided by the NASA Astrophysics Data System

1887MNRAS..47..431T

Occultation of α Tauri. 1887, March 2. By G. L. Tupman.

Notwithstanding the daylight, the Moon's dark limb was plainly visible. *Aldebaran* was very bright and flaring, and hung a long time on the limb without being projected on it more than half of its apparent diameter, which was $10''$ or $15''$, the reddish colour being very remarkable. By the click of the armature of the transit-clock-relay, at 50^{s} the star suddenly waned, but remained conspicuous until 51^{s}, the light lingering, at less than one-half of its original intensity, for fully one second of time. The point of disappearance was on the dark limb, well clear of the terminator.

Having placed a wire tangent to the Moon's bright limb at the calculated point of reappearance, the star was seen to re-appear instantaneously. It was very much less bright at the bright limb than it had before appeared. Watched for 30 seconds there was no further increase of its light. It hung on the limb and was fairly bisected by the latter for a considerable time.

Achromatic of 4½ inches aperture, power 66.

	Local Sid. Time. h m s	G.M.T. h m s
Disapp. . . .	4 28 39·5*	5 49 11·6
Reapp. . . .	4 40 33·4	6 1 3·6

The occultation was observed by Mr. E. B. Knobel at Bocking, who remarks:—

"The star *glided out* (at the dark limb near the terminator). It did not *snap out* as usual, but there was an appreciable time in its disappearance; it was not an instantaneous phenomenon. The observation was good.

"The reappearance (at the bright limb) seemed instantaneous, but the observation was not quite so good as the immersion. Time between observations 9 minutes 30 seconds."

Sextant Observations of Comet a, 1887, *on board the ship "British Merchant."* By Captain E. J. Molony.

(*Communicated by Captain H. Toynbee.*)

1887, *January* 21.—Lat. 28° 17′ S. Long. 21° 25′ W.

At 8 P.M. saw for the first time a comet; a long slightly curved tail, originating in a point towards the Sun, and stretching for 18½° towards the nearest (smallest) Magellan Cloud, from which its visible termination is distant 18°. As the comet is very ill defined and sky cloudy the following distances are approximate. G.M.T. $10^{h}\ 11^{m}$:—

---

* Corresponding to the recorded 50^{s} by the clock.

Downloaded from http://mnras.oxfordjournals.org/ at Uniwersytet Warszawski Biblioteka Uniwersytecka on March 26, 2015